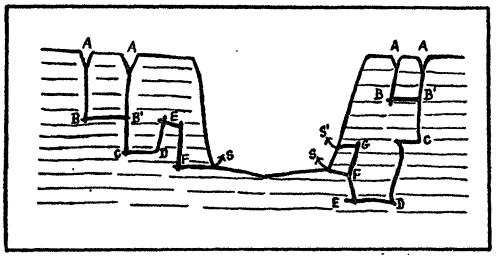
nature, if it ever occurs, and physiographers have done well (and physicists would do well) to omit it from their text-books. But in a modified form the siphon is probably occasionally operative. A figure which, although imperfect, is more in accord with the structure of limestone strata and the effect of solution upon them is given by de Martonne ("Traite de Geographie Physique," 1909, p. 347, fig.



147*A*). In this case (Fig. 1) the joints of the rock are shown to be widened by solution in such a manner as to make a siphon spring (*s*) possible. On the left a normal siphon is shown in which the spring does not flow until the reservoir *ABCD* is filled to *B*, that is, until the water begins to flow through the long arm *EF* of the siphon. On the right of the valley is an inverted siphon. It is perhaps unnecessary to state that although intermittent springs are the commonest of all springs the intermittent character seldom depends upon the presence of a siphon.

Sink Holes.—Sink or swallow holes are formed in one of two ways: (1) by the falling in of the roof of a cavern and (2) by the solution and erosion of the rock along joint or fault planes, the latter being by far the commoner origin. American writers of text-books of geology and physiography usually give but one explanation of the origin of these features and that the first and most unusual. Only two authors, as far as the writer is aware, give both. The popularity of the first explanation is probably due to the fact that the word "sink" implies a sinking in of the surface as well as the disappearance of the water by pouring into a funnel. The suggestion is offered that the older (?) term "swallow" hole be used, since it carries with it only the thought of the disappearance of the water in a throat or funnel.

Herdman F. Cleland
Williamstown, Mass.,
November 3, 1911

THE RÔLE OF SALTS IN THE PRESERVATION OF LIFE

In my address on "The Rôle of Salts in the Preservation of Life," published in No. 381 of Science, I made the following statement "Several authors, Lillie, McClendon and Lyon, have suggested that the fertilized egg is more permeable to salts than the unfertilized egg." Mr. R. Lillie calls my attention to the fact that he never made this suggestion. I feel it my duty not only to express my regrets for my oversight but to add that if my paper had dealt fully with the literature of the subject Mr. Lillie's ingenious experiments and original ideas should have occupied a prominent place in it, as those who are familiar with the subject will fully realize.

Jacques Loeb

SCIENTIFIC BOOKS

Observations and Investigations made at the Blue Hill Observatory, Massachusetts, U. S. A., in the Years 1906, 1907 and 1908, under the Direction of A. Lawrence Rotch. Annals of the Astronomical Observatory of Harvard College. Vol. LXVIII., Part II., 4to. Cambridge, Mass. 1911. Pp. 99–229, Figs. 15.

The work of the Blue Hill Observatory needs no introduction to the readers of Science. The progress of that unique institution, so important for American meteorology, has been faithfully recorded in the columns of this journal ever since the foundation of the observatory in 1884. Meteorologists have long since learned that the Blue Hill volumes of the *Annals of the Harvard College Observatory* are sure to contain results worthy of careful note and study.

Volume LXVIII., Part II., of these *Annals* contains the observations made twice daily in 1906–08; the usual summaries; results from the kite meteorograph and simultaneous records at the ground 1906–08; data obtained by means of *ballons-sondes* at Pittsfield, Mass., in 1908; supplementary data for a manned